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# The Quality-of-Relationship Construct in IT Outsourcing

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## Abstract

*This paper reports on the conceptualization and measurement of an important management-controllable factor affecting the success of an information technology outsourcing (ITO) arrangement, namely Quality of Relationship (QoR). Attributes of the construct were identified from an analysis of the literature, and key attributes selected based on interviews with 29 managers in four pairs of client and supplier organizations. Construct validity of the resultant measure is assessed through comparison with qualitative interview data, and through tests of association between our measure and perceived overall ITO success. The results suggest that the ten indicators identified in the paper provide a valid measure of the quality of relationship that can be used by both client and supplier managers, and researchers, in assessing the health of an ITO relationship.*

**Keywords:** Outsourcing relationships, quality, success

## 1. Introduction

Information technology outsourcing (ITO) is the contractual provision of IT goods or services to a client organization by an external supplier organization. Worldwide, the market for IT outsourcing services is of the order of US\$500 billion per annum and growing (Hui et al. 2001). According to ComputerWire (2005), total new outsourcing deals announced worldwide in 2004 exceeded US\$160 billion. However, IT outsourcing has proved more difficult to manage than many firms expected (Lacity et al. 1998). Thus, more research is needed into ways to manage ITO more effectively.

The aspect of ITO management that we focus on in this study is the Quality of Relationship between client and supplier managers. ITO relationships are complex, multifaceted, ongoing relationships between managers at different levels of both the client and supplier organizations (Lacity et al. 2001). It is widely argued that success in ITO depends, at least in part, on how much effort the respective organizations invest in managing these relationships (Klepper 1998). However, to make such investments more effective, managers need to understand what a high-quality relationship means, and how it can be measured. Thus the research questions addressed in this paper are:

- *What are the most important characteristics of a high-quality ITO relationship?*
- *How should Quality of Relationship be measured?*

## 2. Conceptual Foundation

The term “relationship” has many meanings and in the ITO literature is often used interchangeably with the term “partnership” (Grover et al. 1996; Lee et al. 1999). According to [www.wordreference.com](http://www.wordreference.com), one meaning of “relationship” is “a state of connectedness between people”. Using this as our guide, we define an ITO relationship simply as a state of connectedness between client and supplier managers in an ITO arrangement. Note that this definition requires no judgment about whether the relationship is healthy or not. We capture the health of an ITO relationship in a construct called Quality of Relationship (QoR). Quality of Relationship is the degree to which both client and supplier managers regard the relationship as positive and constructive. In this paper, we treat QoR as an aggregation (average) of the views of many individual managers. Finally, since perceptions of QoR are likely to change over time, we view QoR as a function of time: QoR(t). In this study, we use Lacity and Willcocks’s (2001, p293) six phases—scoping, evaluation, negotiation, transition, middle, and mature to indicate time. However, any other depiction of an ITO arrangement’s progression through the outsourcing process could be used. In some ITO arrangements, the middle and mature phases may last many years and some finer-grained measure of time may be needed.

A search of the literature identified twelve main ITO studies that investigated attributes influential in building a healthy and long-term relationship with a partnering organization (Davis 1996; Goles 2001; Goles et al. 2002; Grover et al. 1996; Kern 1997; Kern et al. 2000; Kern et al. 2001; Kern et al. 2002a; Klepper 1995b; Klepper 1998; Lee and Kim 1999; McFarlan et al. 1995). Amongst those, Lee and Kim (1999) conclude that interaction and behavioral attributes such as communication, participation and information-sharing significantly influence partnership quality; Kern and Willcocks (2001, p.356) state that behavioral attributes such as conflict, cooperation and trust influence interaction and the efficiency outcome of an outsourcing arrangement; and Klepper and Jones (1998) note that communication, cooperation and information-sharing are required in building relationships. In addition to the above 12, we also identified six studies in the marketing literature that explored relationship quality—from the service selling or salespeople’s perspectives (Crosby et al. 1990; Dorsch et al. 1998; Dwyer et al. 1987; Hewett et al. 2002; Kumar et al. 1995; Lewin et al. 1997). Hewett et al. (2002) define relationship quality as “a buyer’s level of trust in and commitment to a seller firm”. Crosby et al. (1990) investigate the quality of the salesperson-client relationship as perceived by the client, and find that relationship quality, from the customer’s perspective, is achieved through the salesperson’s ability to reduce perceived uncertainty. In this context, they conclude that satisfaction and trust are important in dyadic relationships. Finally, from the supplier’s perspective, Kumar et al. (1995, p.55) define relationship quality as “encompassing conflict, trust, commitment, and willingness to invest in the relationship and expectation of continuity”.

Gathering together the various concepts mentioned in these eighteen studies, we identified a total of 49 attributes that influence the relationship between the client and the supplier in an IT outsourcing arrangement. These constitute our starting list of candidate attributes for measuring QoR. Kern and Willcocks (2001) argue that high quality relationships drive ITO Success (see Figure 1). For the purposes of this study, Perceived ITO Success is defined as a value judgment made by some stakeholder about the net benefits the stakeholder’s organization receives from a given ITO arrangement (Seddon et al. 1999). The theoretical argument underlying Figure 1 is that because outsourcing involves a principal-agent relationship and a necessarily incomplete contract, there is an ever-present risk that either party may behave opportunistically to exploit “holes” in the contract (Williamson 1985).

However, it is argued, if relationships between the parties are cordial, the parties are more likely to try to work together to resolve uncertainties as they arise, and this will lead to more satisfactory outcomes from the points of view of both parties. Thus ITO arrangements with high-quality relationships are more likely to be successful than ITO arrangements with low-quality relationships.

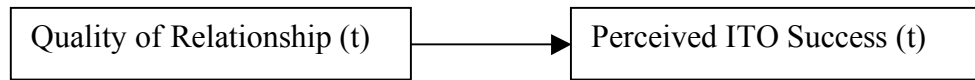


Figure 1: Quality of Relationship is a key determinant of ITO Success.  
“(t)” indicates “function of time”

### 3. Methodology

As indicated earlier, our goal in this study is to define and measure a construct called Quality of Relationship (QoR). In many respects, this goal is similar to that of Bassellier and Benbasat (2004) who define and develop a measure for a construct called Business Competence in IT Professionals. However, our method is different. Instead of using their literature review plus survey plus statistical analysis approach, we decided to use a literature review plus positivist case study plus qualitative analysis approach. The reason for this choice is that our understanding of QoR was limited, so we felt we needed to speak in person with our informants (client and supplier), and gather first-hand examples, to understand what they meant when they used terms like “relationship”, “partner”, “communications”, and “trust”.

Four pairs of clients and suppliers from medium-to-large private and the public organizations agreed to participate in the study: a financial institution, a manufacturing organization, and two governmental agencies. All four client organizations had been engaged in ITO for at least three years and had contracts ranging from four to ten years. A total of 74 hours of structured interviews with 14 client and 15 supplier managers were conducted from September 2002 to June 2004. Interviewees were senior managers, IT/business unit managers, and contract directors/managers responsible for overseeing the outsourcing arrangement in the eight organizations.

The unit of analysis was the relationship between the client and supplier in each outsourcing case. This is similar to the approach used by Lee and Kim (1999). All interviews were audio recorded, transcribed into nVivo, and analyzed using Miles and Huberman’ (1994) data display model. We grouped, categorized and coded the data and classified them into areas of similarity and contrast. We then carried out several iterations to draw out important and relevant evidence to understand Quality of Relationship and its association with Perceived ITO Success.

### 4. Results

Findings from this study are reported in three parts. Part 1 reports how we identified the most important indicators of QoR from the 49 identified in the literature review (above), and so constructed a scale for measuring of QoR. Part 2 uses qualitative data to assess whether the scores from the QoR(t) scale from Part 1 are consistent with managers’ descriptions of the quality of their relationships with their outsourcing partner. Part 3 uses quantitative data to

examine the association between the QoR(t) measure and Perceived ITO Success (t) depicted in Figure 1.

#### 4.1 Part 1: Identifying the key attributes of QoR

During interviews, each interviewee was asked to select the attributes (from the list of 49) that they saw as relevant and necessary in building a quality relationship with their partner organization. Results, from both client and supplier managers, are shown in Table 1. The symbol “1” in each cell indicates that the interviewee selected that attribute as one that had influenced the relationship. Totals on the right of Table 1 indicate, for example, that communication and trust were selected by 28 of the 29 interviewees. Since there was a clear break in popularity between the top ten attributes and the remaining 39, we chose to use those top ten attributes as indicators of the underlying QoR construct. In descending order, the ten attributes we selected were: communication, trust, personal bond, commitment, conflict resolution, flexibility, participation, information sharing, cooperation, and listening. These attributes were used to construct the scale for measuring QoR shown in Table 2.

Table 1: Quality of Relationship Attributes (\* the top ten attributes)

Attributes of Quality Relationship	Gov. Co								City Co				Manufa Co						Fin Co								Total		
	Client				Supplier				Client		Supplier		Client		Supplier		Client		Supplier										
	P2	P7	P8	P9	P10	P11	P12	P13	P14	P15	P16	P17	P18	P23	P24	P26	P27	P28	P29	P30	P22	P31	P38	P39	P32	P33		P34	P35
Communication *	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28
Trust *	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	28
Personal bond *	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	27
Commitment *	1	1	1	1		1	1	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	26
Conflict resolution *	1	1	1	1	1	1	1			1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	26
Flexibility *	1	1	1	1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	26
Participation *	1	1	1	1	1	1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	26
Information sharing *	1		1	1	1	1	1	1	1	1	1	1		1	1	1		1	1	1	1	1		1	1	1	1	1	25
Cooperation *	1		1	1	1		1	1	1	1	1	1		1	1	1		1	1	1	1		1	1	1	1	1	1	24
Listening *	1	1				1	1		1	1		1	1	1	1	1		1	1	1	1	1	1	1	1	1	1	1	24
Cultural fit						1	1	1					1				1	1	1	1	1	1	1	1	1	1	1	1	16
Coordination		1			1		1				1	1		1							1		1	1	1	1	1		13
Business understanding	1	1	1							1			1	1							1	1	1	1	1			1	12
Customer Satisfaction		1	1				1		1		1				1	1				1			1		1		1	1	12
Service delivered				1		1			1	1		1				1		1	1		1	1				1	1	1	12
Top management support		1		1		1			1			1				1				1		1		1	1		1		11
Joint action		1	1	1		1				1			1			1				1			1		1				10
Customer Orientation				1		1	1					1	1			1				1				1					9
Managemetn structure						1		1				1			1		1		1		1			1		1			9
Honesty							1							1					1		1		1	1				1	8
Capability		1			1						1			1					1									1	7
Cost reduction								1												1	1			1	1		1	1	7
Service quality		1	1						1		1			1						1				1					7
Shared vision		1				1					1				1					1	1	1							7
Expectation			1		1							1				1					1				1				6
Power				1					1				1								1					1	1		6
Satisfaction	1					1		1				1					1						1						6
Strategies (communication, HR)	1						1		1						1										1			1	6
Consensus		1															1				1								5
Exchange/relationship type								1				1							1				1					1	5
Opportunism													1	1		1	1	1											5
Set up SLA/SLM		1				1				1		1								1									5
SLA management				1		1				1								1							1				5
Deision criteria, intent					1							1						1				1							4
Processes				1			1				1					1													4
Benefit and risk share																1								1				1	3
Dependency (mutual)	1										1																	1	3
Executive commitment	1				1													1											3
Ethical profile					1					1																			2
Supplier statbility, competency					1									1															2
Age of partnership							1																						1
Contract type										1																			1
Continuity																													0
HR transition issues																													0
Integration																													0
Investment																													0
Renegotiation																													0
Risk management																													0
Supplier development																													0
Willingness																													0

Table 2: Quality-of-Relationship Scale (to be completed by either client or supplier managers)

1) The partner organization regularly maintains close <b>communication</b> to address outsourcing objectives with my organization.
2) The partner organization has established a sense of <b>trust</b> and credibility with my organization.
3) The partner organization has developed <b>personal bonds</b> with my organization.
4) The partner organization maintains high degree of <b>commitment</b> in building and sustaining a quality relationship and meeting performance expectations with my organization.
5) The partner organization conducts <b>conflict resolution</b> and problem solving sessions to work on issues with my organization.
6) The partner organization is <b>flexible</b> to fulfill changes in my current and future business conditions.
7) The partner organization regularly <b>participates</b> in joint planning and goal setting sessions with my organization.
8) The partner organization has developed <b>cooperative</b> relationship in achieving desired results with my organization.
9) The partner organization constantly <b>shares information</b> including critical and strategic information with my organization.
10) The partner organization actively <b>listens</b> and responds readily to our outsourcing needs.

The first author then began a second series of interviews with the same 29 client and supplier managers from Step 1. During the data gathering sessions, interviewees were asked to reflect on their relationship experience with their partner organization and score the ten attributes in Table 2 using a seven-point Likert scale with anchors “strongly disagree” to “strongly agree” for each of the six phases of the Lacity and Willcocks (2001, p.293) ITO lifecycle. Thus, 60 data points were collected from each interviewee. The ten data points at each time period (scores on the ten questions in Table 2) were averaged to calculate a QoR(t) score for each interviewee. These scores were then averaged for all client or supplier managers, respectively, in the same case, to calculate the QoR(t) score for each case.

The resulting QoR(t) scores for the four cases are plotted in Figures 2-5. Average client-manager perceptions are shown in the solid lines. For example, the solid line in Figure 2 shows average QoR(t) scores from the four client-firm managers who responded to the questions in Table 2, for each of the six phases of that contract. Average supplier-manager perceptions are shown in the dashed lines.

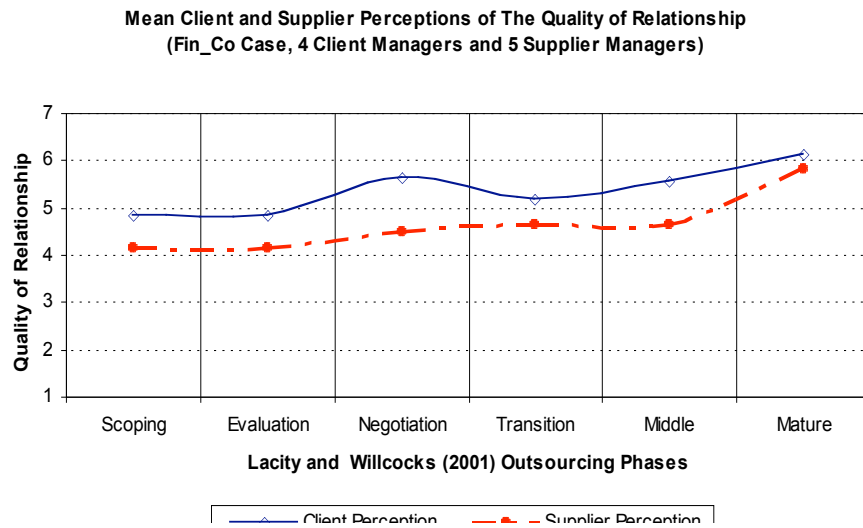


Figure 2: Fin\_Co Quality of Relationship

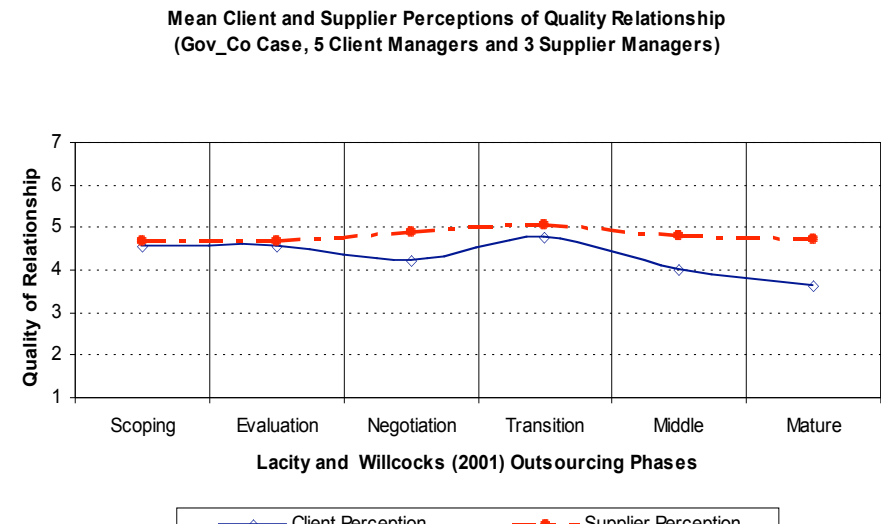


Figure 4: Gov\_Co Quality of Relationship

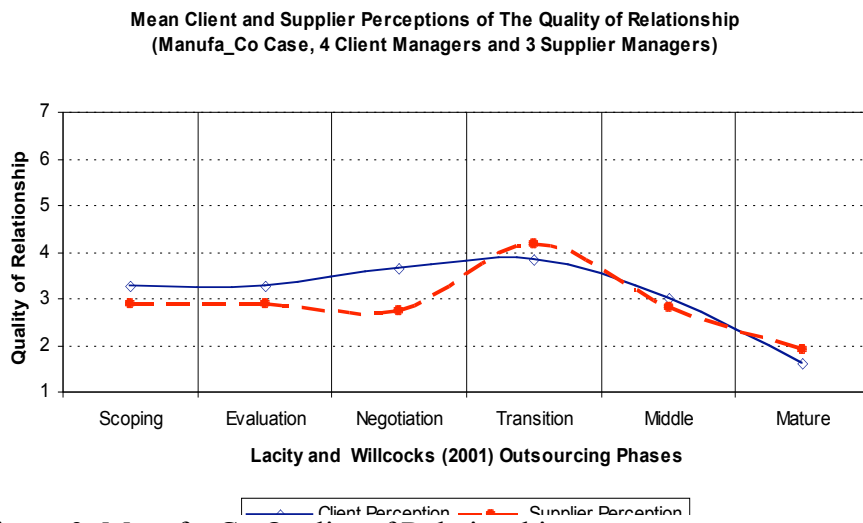


Figure 3: Manufa\_Co Quality of Relationship

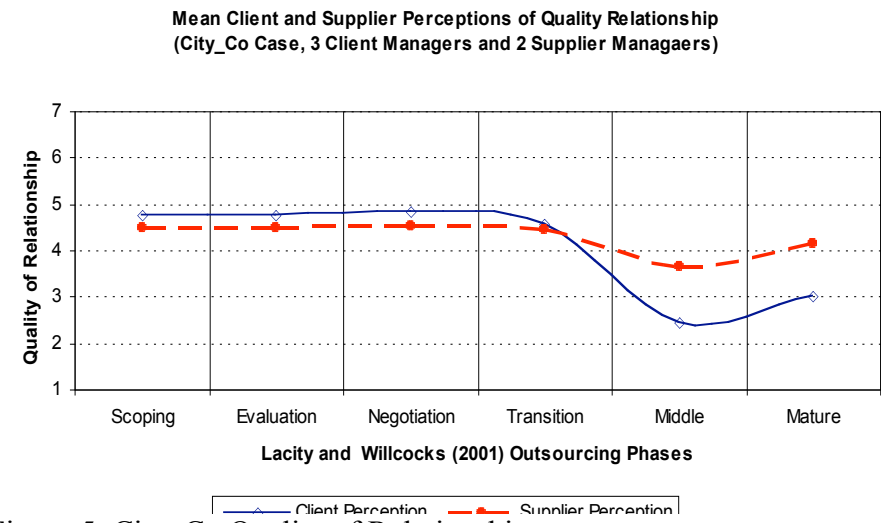


Figure 5: City\_Co Quality of Relationship

#### **4.2 Part 2: Qualitative Evaluation of the Content Validity of our QoR(t) Measure**

In this section, qualitative evidence from the interviews is used to assess whether the QoR(t) scores in Figures 2-5 do, indeed, measure the desired QoR(t) construct. Due to space limitations, only three of the four cases (i.e., Figures 2-4) are discussed.

##### **Case One: Fin\_Co**

Fin\_Co is a large global financial institution headquartered in Australia. In 1996, the organization was under pressure from its business units to improve its telecommunications network to support major projects and initiatives in multiple geographies. In 1997, Fin\_Co signed an ITO agreement with a multi-national supplier to provide its entire telecommunications, including voice, data, network connectivity, and call center services. According to the various managers interviewed, the outsourcing arrangement allowed Fin\_Co to focus on its core competency and gain access to new skills and innovation. From the outset, both partners were keen to build and sustain a sound long-term relationship. To that end, they decided to establish a cooperative and trusting environment and measure QoR (not their term) as an indicator of the success of the arrangement:

*To measure success, I also look at the relationship to see whether it is healthy, honest, and cooperative. (Supplier manager #34)*

*The spirit of our engagement is based on relationship. (Client manager #38)*

Building a trusting relationship proved difficult initially. One issue was that the supplier did not have a clear and complete understanding of the size and complexity of the outsourced services. Information provided by the client about the network operation in multiple geographies was inadequate. As a result, the quality of the relationship, as perceived by the supplier, was not high at the Scoping phase. This perception is reflected in Figure 2, where the average QoR score from supplier managers for the scoping phase is a neutral 4.

As part of the Transition, Fin\_Co transferred its IT assets and a number of employees to the supplier organization. However, during the transition, the client came across an unexpected challenge. Some employees in the client organization changed their behavior and saw their colleagues who had been transferred to the supplier organization as outsiders. Consequently, the level of participation and information sharing between the client users and the transferred employees dipped. Although the challenge was resolved promptly, QoR suffered during the first two months of the transition phase:

*When people were transitioned over from the client organization, some of our staff started treating them entirely differently because they were wearing different badge the following day...I think they changed their behavior because they thought that these people transferred to separate company, therefore they shouldn't be provided the type of information that we had before and they were suddenly banned to going to meetings. (Client Manager #31)*

This perception of troubled relationships in the transition phase is evident in Figure 2, where the average client-manager QoR score dropped from 5.6 in the Negotiation phase to about 5 during Transition. The drop is not as marked as the transcripts suggested initially, but this was because the overall relationship was actually still quite healthy.



After Transition, both parties placed more emphasis on higher participation, cooperation, and communication. This enabled them to establish a good working relationship and a trusting environment where they created personal bonds between individuals of both parties at all levels. Overall, the perception of QoR rose. At the time of the interviews, in the Mature phase, the overall success of the deal was perceived by both parties as so good that Fin\_Co renewed their outsourcing agreement in 2002 for another five-year period:

*What the most interesting part of my story for others is how to create an atmosphere of openness and trust. The relationship is key. If the relationship is sound, then everything will flow from that relationship. Once the relationship is soured, then all of the deliverables will start to fail. So, the key is to have a healthy relationship based around trust and a lot of emphasis on communication and development of the relationship. The view being that we want to work collaboratively. (Client manager #31)*

Comparing QoR as revealed by the interviews to the average QoR scores of about 6 for both client and supplier managers in the Mature phase in Figure 2, it is evident that the QoR measure again corresponds well with perceptions of both client and supplier managers. In short, analysis of the interview data suggests that the QoR scores in Figure 2 do provide a valid measure of client and supplier perceptions of the relationship during the six phases of Fin\_Co's outsourcing arrangement.

### **Case Two: Manufa\_Co**

Manufa\_Co is a global manufacturing company based in Australia with annual sales of over AU\$10 billion. In 2002, the organization's senior management realized that the cost of their IT operations was going up and their IT service model could not provide the quality services that their businesses expected. They also recognized that they had neither the people, nor the skills to improve the IT services. Manufa\_Co decided to sign a five-year contract worth AU\$100 million and outsourced its entire IT function, except application development, to a global service provider. As part of the agreement, Manufa\_Co transferred its IT staff to the supplier.

During the Scoping, Evaluation, and Negotiation phases, which were facilitated by an ITO consultant, both parties were eager to communicate, participate in joint planning sessions to develop their processes, and build personal bonds with key players. Knowledge sharing and listening were reported as particularly high. However, Scoping, Evaluation, and Negotiation phase QoR scores for both clients and suppliers are shown in Figure 3 at about 3, more than a full point lower than the corresponding scores for Fin\_Co. Detailed analysis of the transcripts revealed that there were indeed difficulties at that time. Supplier managers reported difficulties in terms of participation, cooperation, and information sharing on the part of the client. The supplier was therefore hesitant about some aspects of the contract, and experienced difficulties in making contractual commitments for certain parts of the contract, such as service level agreements. One reason for these problems was that this particular supplier was inexperienced in negotiating outsourcing arrangements. Although the firm was experienced in providing outsourced services in Europe and North America, they had no prior experience providing outsourcing services in Australia. Also, despite claims of "openness", the client was trying to negotiate a very low-cost contract. Tensions are evident in the transcripts:

*We were negotiating the deal and were actually working from the point of view of openness and honesty. (Client manager #26)*

*“If you’re the new kid on the block, you’ve got to try and do something to interest the people, so you can get your landmark account and referenceability. So you might make a decision that you will go in for the base-line, because that might help you with your ongoing success, and what you’ll then try and do is to get your profit from the non-baseline activities.” (Supplier manager #28)*

Taking these difficulties into account, the QoR scores of about 3 during the first three phases in Figure 3 seem about right.

During the Transition phase, both parties were fully committed and the quality of the relationship was described as high, at least from the supplier’s perspective. The client, however, was concerned about some emerging conflicts. It seems that during due diligence, the supplier placed too much trust in the client’s information without verifying and validating the accuracy of the information, and there were discrepancies between what the client actually required and what the supplier thought it was obliged to supply:

*The contract did not define the relationship going forward and it became open to interpretation, which led to conflict. (Client manager #30)*

*Well it came to trust or a very small clause that says if we find something different then we are allowed to go back and renegotiate. And that’s why the relationship is in so much trouble. (Supplier manager #28)*

In hindsight, the QoR scores of 4 for the supplier in the Transition phase were higher than justified, but they do seem to reflect the supplier managers’ perceptions at that time.

The transcripts reveal that QoR fell significantly during the Middle phase, when the supplier realized that it was losing money on the project. When the client firm refused to accept increased charges, the relationship became increasingly adversarial. This change in relationship is evident in scores for individual attributes of the QoR measure in Table 2: scores for flexibility, cooperation, communication, trust, and listening decreased dramatically for both parties. The situation deteriorated further in the Mature phase and eventually led to contract termination:

*When there is no level of communication, collaboration, or participation, or when there is no personal bond and nobody wants to resolve the issues. Then the relationship becomes unworkable because there is no give-and-take anymore. The personal bond or relationship between the partners is crucial, because it really does dictate the go-forward position. (Client manager #30)*

Comparing QoR as revealed by the interviews to the QoR score of 2 for the Mature phase in Figure 3, it is evident that the measure again corresponds well with perceptions of both client and supplier managers.

In short, analysis of the interview data suggests that the QoR scores in Figure 3 also provide a measure that corresponds closely with client and supplier perceptions of QoR during the various phases of Manufa\_Co’s outsourcing arrangement.

### **Case Three: Gov\_Co**

Gov\_Co is a government agency in Australia. In the early 1990s, the government of the day decided to outsource IT service provision in all its agencies. In early 1992, under pressure from the government's central Department of Finance, Gov\_Co signed a five-year outsourcing contract worth AU\$90 million with a multi-national service provider to provide mainframe, helpdesk, system development, application maintenance, some network support, and desktop services. This consumed 80 percent of Gov\_Co's IT budget.

The interviews reveal that during the Scoping, Evaluation, and Negotiation phases, most of Gov\_Co's IT managers disagreed with the decision to outsource IT, and this affected their relationships with the supplier:

*The deal was running and managed by the Department of Finance.... There was political imperative that was put on to get the contract done in a week (Client manager #8).*

Turning to Figure 4, the falling average client manager QoR scores from 4.5 to 4 during the first three phases reflect some client management concerns about the relationship, but not major worries. During the Transition phase, both parties became more committed to making the relationship work. A supplier manager commented:

*"Both organizations attended a meeting with our senior executives and representatives from business units. We spent two days and agreed on set of principles that were sound for good relationship like honesty, integrity, and spirit of response to activities, trust, and professionalism. We all agreed that these are important in our relationship and on regular basis we surveyed what various people in the organization thought of those and we asked them how things were going. (Supplier manager #11)*

This improvement in QoR, as reported in the interviews, is reflected in the rising client manager QoR scores in the Transition phase in Figure 4. During that phase, QoR rose to 4.5 for the client managers and 5 for supplier managers. The relationship seemed reasonably healthy.

However, despite efforts from both sides, the Middle and Mature phases of the contract were not smooth sailing. Client managers were not convinced that the supplier had the capability to deal with the Y2K (year 2000) issue successfully. In addition, the contract locked Gov\_Co out of access to new technologies:

*We didn't have internet, we didn't have electronic service delivery, and we didn't have all these little hand held devices we're getting. All these parts had impacts on the infrastructure one way or another. (Supplier manager #12)*

This gap between services desired and services provided led to tensions that are reflected in the client managers' QoR scores of 3.7 in the Mature phase in Figure 4. However, despite its relatively low assessment of QoR, Gov\_Co eventually renewed the contract for another five-year term.

### 4.3 Summary

The analysis of the interview data presented in this section, above, suggests that the QoR scores in Figures 2-4, and the individual attribute scores from which they are calculated, are valid indicators of QoR as reported by the various managers in nearly 70 hours of interviews. The Mature-phase measures in Figures 2-4 clearly differentiate the successful, unsuccessful, and middle-of-the-road contract outcomes. These measures also reflect that renewal outcomes from all three contracts (contract renewals are not perceptual measures). Thus, this qualitative analysis provides strong evidence of the validity of our QoR scale in Table 2.

### 4.4 Part 3: Assessing Content Validity of QoR(t) using Perceived ITO Success(t) as a Criterion Measure

In this third empirical part of this paper, we present evidence of the association between QoR scores from Table 2 and perceived overall ITO Success. The reasoning here is that theory (presented in the Conceptual Foundations section above) tells us to expect an association between QoR and ITO Success. Thus, in addition to the qualitative evidence in Part 2, evidence of a positive association between QoR and Perceived ITO Success would be a second indicator that our QoR scale measures what it is intended to.

During the same interviews when managers scored the ten QoR attributes for Part 2, they were also asked to score the success of their ITO arrangement from the perspective of their organization. This assessment was requested only for the Mature phase, again using a seven-point Likert scale. The precise prompt presented to managers was:

*“Today, from our point of view, the IT outsourcing arrangement is successful.”*

Figure 6 shows a scatterplot of scores for Perceived ITO Success and QoR from our 29 interviewees. The horizontal axis shows the mature-phase QoR score from each participant, an average of scores for the ten attributes in Table 2. The vertical axis shows the single-item Likert score for Perceived ITO Success. Visual inspection of the scatterplot shows a very high association between the two measures as reported by each manager, and considerable agreement between managers involved in the one deal (e.g., all the “M” data points are in the bottom left of Figure 6). We computed two tests of association. First, the Pearson correlation coefficient for the 29 observations is  $r=0.922$ ,  $p<0.000$ ,  $n=29$ . Second, since the 29 observations relate to only four cases—which means that the responses are not strictly independent—correlations were also calculated by averaging all client and supplier scores for both Perceived ITO Success and QoR for each of our four cases. For these four pairs of scores, the Pearson correlation coefficient was  $r=0.982$ ,  $p<0.018$ ,  $n=4$ . This empirical support for a theoretically predicted association provides further evidence of the construct validity (Trochim 2005) of the QoR measure. In fact, although logic tells us otherwise, one might almost conclude that the two concepts, QoR and Perceived ITO Success, are measuring much the same construct!

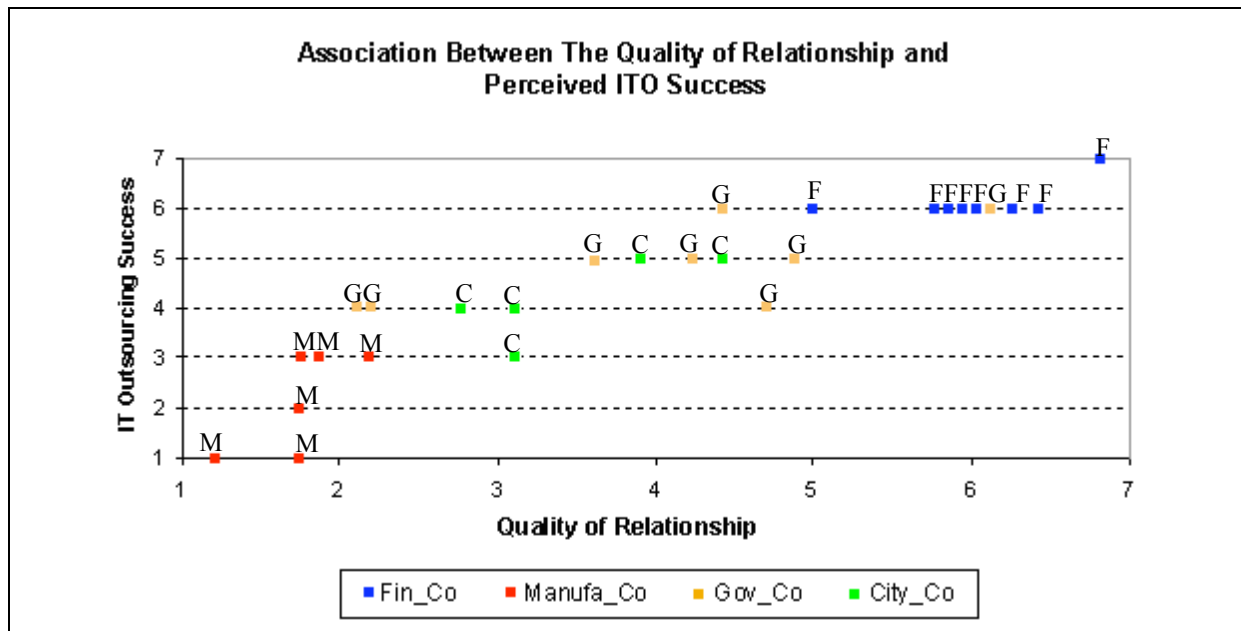


Figure 6: Scatterplot of Perceived ITO Success and mature-phase Quality of Relationship (n=29) showing strong association between the two measures, and between views of different interviewees concerning the same deal (F=Fin\_Co, M=Manufa\_Co, G=Gov\_Co, C=City\_Co)

## 5. Limitations and Generalizability

One possible limitation is that the initial list of 49 candidate attributes of QoR gleaned from the literature was not comprehensive enough. However, the ten attributes do seem to capture the key ideas discussed by both client and supplier managers during the interviews. A second limitation is that data collection for the first five periods in Figures 2-5 was retrospective. However, as our only use of these data was to compare QoR scores to managers' perceptions of the quality of the relationship, and these corresponded closely, use of retrospective data is not a major threat to this study. A third limitation of the study is that the four case studies were all conducted in Australia in 2002-4. So how generalizable are the findings? Here we argue that high QoRs are important in ITO because powerful forces of organizational self-interest are motivating conflicting managerial behavior, and managers with high levels of communication and trust are more likely to find satisfactory ways of reconciling those competing interests. Further, since all outsourcing contracts are subject to such forces, it seems likely that the QoR construct and its attributes as identified in this paper will be important in all ITO deals in the western world, e.g., in countries such as the US, Canada, UK, Germany, and Australia.

## 6. Conclusion

This paper began with the proposition that Quality of Relationship (QoR), defined as the degree to which both client and supplier managers regard the relationship as positive and constructive, is an important management-controllable factor that affects the success of ITO arrangements. We argued that identification of key attributes and development of a scale for measuring QoR could (a) be used to guide practitioners in their efforts to make ITO more successful, and (b) provide researchers with a potentially valuable construct for use in future research.

The findings presented above provide three reasons for believing the scale in Table 2 is a valid measure of QoR. First, as reported in Part 1 of the previous section, all 10 attributes in Table 2 were selected by at least 24 of the 29 managers interviewed as being important indicators of QoR. Second, the qualitative analysis in Part 2 shows the average QoR(t) scores in Figures 2-4 correspond closely to management perceptions as revealed in interview-based comments from those managers, their colleagues, and their counterparts in their respective partner organizations. Third, consistent with theory, individual managers' perceptions of Mature-phase QoR were highly correlated with perceptions of Perceived ITO Success. We therefore argue that our conceptualization of QoR and the ten-item instrument developed to measure QoR appear to be valid depictions of concepts important to managers in our four case studies. Finally, since the conflict-of-interest issues that make QoR important to managers in our four case-study organizations are likely to be present in any ITO arrangement, the QoR measure in Table 2 appears to be a valid measure for use by managers and researchers in ITO arrangements around the western world today.

For researchers, the work presented here could be used as the basis of a more formal instrument-development exercise, e.g., using the large-sample survey-based methods used by Bassellier and Benbasat (2004), to refine our QoR(t) scale. However, even in its current form, we would expect the scale to be useful for any researcher with interests in ITO relationships. For practitioners the implications of this study are that managers need to be proactive in ensuring that quality relationships are built from the start, and maintained throughout the life of the arrangement. Our case-study findings show that the organization that invested most in developing quality relationships with its partner organization realized more positive outcomes than the other three organizations. We suggest that this relationship is causal. Finally, since good management needs good measures, we suggest that the measure presented in Table 2 would be appropriate for monitoring QoR in western organizations today.

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